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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,389	02/25/2002	Stephen M. Dershem	QUANT1190-3 (028248-1010)	8561
7590 11/10/2003 FITZPATRICK, CELLA, HARPER & SCINTO 30 Rockefeller Plaza New York, NY 10112-3801			EXAMINER MCCLENDON, SANZA L	
			ART UNIT	PAPER NUMBER

1711

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/084,389

Applicant(s)

DERSHEM ET AL.

Examiner

Sanza L McClendon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 48,50,51 and 54-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 48,54,56 and 58 is/are allowed.
- 6) ☒ Claim(s) 51,54 and 59-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

DETAILED ACTION

*Response to Amendment*

1. In response to the Amendments received on August 25, 2003, the examiner has carefully considered the amendments. The examiner acknowledges the cancellation of claims 46-47, 49, 52 and 53 and the addition of new claims 58-61.

*Response to Arguments*

2. Applicant's arguments, filed August 25, 2003, with respect to the rejection(s) of claim(s) 46-57 as found in the office action mailed 6/27/2003 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, both a provisional obvious-type double patenting and obvious-type double patenting rejection over 09/580,026 and US 6,034,194 will be applied.

*Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 51 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7 and 11 of U.S. Patent No. 6,034,194. Although the conflicting claims are not identical, they are not patentably distinct from each other because they have overlapping subject matter. The two inventions overlap in claimed subject matter with regards to the maleimide found in the instant claim 51 and claim 7 of 6,034,194, the differences being that the peroxide cure initiator is a species of the free radical initiator of component (d) in claim 7 of 6,034,194 as evidenced by claim 11. The maleimides are overlapping because when m is 2 in the instant invention it renders the maleimide of 6,034,194 obvious because x in both instances will be a branched alkylene species comprising at least 12 carbon atoms.

5. Claim 51 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 09/580,026. Although the conflicting claims are not identical, they are not patentably distinct from each other because they have overlapping subject matter. The two inventions overlap in claimed subject matter with regards to the maleimide found in the instant claim 51 and claim 7 of 6,034,194, the differences being that the peroxide cure initiator is a species of the free radical initiator of component (d) of claim 4. The maleimides are overlapping because when a skilled

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artisan chooses x to be a branched chain alkyl or alkylene species having from at least 12 to about 500 carbon atoms renders the maleimide of 10/084,389 obvious.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

*Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  - a. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 54 and 59-61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 54 recites the limitation "assembly" in the preamble. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 54 depends from a composition claim not an article claim.
5. Claims 59-61 recites the limitation "composition" in the preamble. There is insufficient antecedent basis for this limitation in the claim. Said claims depend from an article claim (i.e., the assembly) not composition claims.
6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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b. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 48 rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for maleimides of the formulas disclosed in the specification (see page 4-5 and pages 10-13), does not reasonably provide enablement for maleimides that do not read on the formulas as disclosed by applicant's specification. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. It is unclear for the claims, which types of bismaleimides will provide the properties when cured, are they these solid or liquid or are they high-molecular weight or low-molecular weight, or some combination of these? How are they prepared or does this matter? Are they prepared using aromatic diamines, aliphatic diamines, monoamines, oxyethylene compound, or the like? It is unclear if an ordinarily skilled artisan would even need to answer these questions to make and/or use the composition as defined in the claims to obtain the properties in the claims cured. In the examiners opinion there are too many variable for an artisan of ordinary skill to overcome to produce a compositions that when cured has the properties as found in the instant claim 48.

*Allowable Subject Matter*

6. Claims 48, 54, 56, and 58 are allowed.

7. The following is an examiner's statement of reasons for allowance: The reason for allowance of the claims, in the examiners opinion is that one of ordinary skill in the art would not expected to find an initial adhesion value of at least 115 lbs and a post pressure cooker adhesion of less than 83 lbs when curing a silica die as defined by the instant claims using a maleimide-containing composition for one minute at a temperature of about 200 °C. Although the prior art teaches using maleimide-containing adhesives to bond different size silica dices with Ag coated frames having similar range adhesion values, the prior art fails to teach any such adhesive compositions that provide said adhesion values after curing for 1 minute at a temperature of about 200 °C, said prior art temperatures and times are much higher, such as temperatures of greater than 240 °C and times from 5 minutes to several hours.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. Claims 55 and 57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (703) 305-0505. The examiner can normally be reached on Monday through Friday 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0657.

Sanza L McClendon

Examiner

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SMc

November 3, 2003

  
RABON SERGENT  
PRIMARY EXAMINER